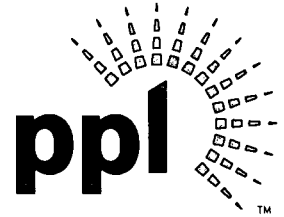


Timothy S. Rausch
Sr. Vice President & Chief Nuclear Officer

PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603
Tel. 570.542.3445 Fax 570.542.1504
tsrausch@pplweb.com



OCT 12 2009

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 50-388/2009-001-00
LICENSE NO. NPF-22
PLA-6552**

Docket No 50-388

Attached is Licensee Event Report (LER) 50-388/2009-001-00. This event was determined to be a Common-Cause Inoperability of Independent Trains or Channels and reportable under 10 CFR 50.73(a)(2)(vii) in that three (3) safety relief valves (SRVs) failed to meet their setpoint criteria in Technical Specification 3.4.3.

There were no actual consequences to the health and safety of the public as a result of this event.

No regulatory commitments are associated with this LER.

A handwritten signature in black ink, appearing to read "T. S. Rausch", is written over a faint, illegible stamp.

T. S. Rausch
Senior Vice President and Chief Nuclear Officer

Attachment

Copy: NRC Region I
Mr. R. R. Janati, DEP/BRP
Mr. F. W. Jaxheimer, NRC Sr. Resident Inspector
Mr. B. K. Vaidya, NRC Project Manager

IE22
NRR

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

| | | |
|---|------------------------------|-------------------|
| 1. FACILITY NAME Susquehanna Steam Electric Station Unit 2 | 2. DOCKET NUMBER 05000388 | 3. PAGE 1 OF 3 |
|---|------------------------------|-------------------|

4. TITLE
Multiple Test Failures of Main Steam Safety Relief Valves

| 5. EVENT DATE | | | 6. LER NUMBER | | | 7. REPORT DATE | | | 8. OTHER FACILITIES INVOLVED | |
|---------------|-----|------|---------------|-------------------|---------|----------------|-----|------|------------------------------|---------------|
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REV NO. | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER |
| 04 | 29 | 2009 | 2009 | - 001 - | 00 | 10 | 12 | 2009 | | 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |
| | | | | | | | | | | 05000 |

| | | | | | | | | | | |
|--|--|---|--|--|--|--|--|--|--|--|
| 9. OPERATING MODE 5 | 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply) | | | | | | | | | |
| 10. POWER LEVEL 0% | <input type="checkbox"/> 20.2201(b) | <input type="checkbox"/> 20.2203(a)(3)(i) | <input type="checkbox"/> 50.73(a)(2)(i)(C) | <input checked="" type="checkbox"/> 50.73(a)(2)(vii) | | | | | | |
| | <input type="checkbox"/> 20.2201(d) | <input type="checkbox"/> 20.2203(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(ii)(A) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(1) | <input type="checkbox"/> 20.2203(a)(4) | <input type="checkbox"/> 50.73(a)(2)(ii)(B) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(2)(i) | <input type="checkbox"/> 50.36(c)(1)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(ix)(A) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(2)(ii) | <input type="checkbox"/> 50.36(c)(1)(ii)(A) | <input type="checkbox"/> 50.73(a)(2)(iv)(A) | <input type="checkbox"/> 50.73(a)(2)(x) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(2)(iii) | <input type="checkbox"/> 50.36(c)(2) | <input type="checkbox"/> 50.73(a)(2)(v)(A) | <input type="checkbox"/> 73.71(a)(4) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(2)(iv) | <input type="checkbox"/> 50.46(a)(3)(ii) | <input type="checkbox"/> 50.73(a)(2)(v)(B) | <input type="checkbox"/> 73.71(a)(5) | | | | | | |
| | <input type="checkbox"/> 20.2203(a)(2)(v) | <input type="checkbox"/> 50.73(a)(2)(i)(A) | <input type="checkbox"/> 50.73(a)(2)(v)(C) | <input type="checkbox"/> OTHER | | | | | | |
| <input type="checkbox"/> 20.2203(a)(2)(vi) | <input type="checkbox"/> 50.73(a)(2)(i)(B) | <input type="checkbox"/> 50.73(a)(2)(v)(D) | Specify in Abstract below or in NRC Form 366A | | | | | | | |

12. LICENSEE CONTACT FOR THIS LER

| | |
|---|--|
| Name Cornelius T. Coddington, Senior Engineer - Nuclear Regulatory Affairs | Telephone Number (Include Area Code) (610) 774-4019 |
|---|--|

| CAUSE | SYSTEM | COMPONENT | MANU-FACTURER | REPORTABLE TO EPIX | CAUSE | SYSTEM | COMPONENT | MANU-FACTURER | REPORTABLE TO EPIX |
|-------|--------|-----------|---------------|--------------------|-------|--------|-----------|---------------|--------------------|
| | | | | | | | | | |

| | |
|---|--|
| 14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO | 15. EXPECTED SUBMISSION DATE MONTH DAY YEAR |
|---|--|

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

During the Susquehanna Unit 2 14th Refueling and Inspection Outage, three (3) Main Steam Safety Relief Valves (SRVs) failed to meet the setpoint criteria of +/- 3% set forth in Technical Specification 3.4.3. All three SRVs actuated at a setpoint less than the -3% criteria. The cause of the lower setpoint actuation is attributed to drift. This event was determined to be a Common-Cause Inoperability of Independent Trains or Channels and reportable under 10 CFR 50.73(a)(2)(vii). The SRVs remained functional and the Technical Specification required number of SRVs (12) remained operable. There were no actual adverse consequences to the fuel, any plant equipment, or to the health and safety of the public as a result of this event.

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

| 1. FACILITY NAME | 2. DOCKET | 6. LER NUMBER | | | 3. PAGE |
|---|-----------|---------------|----------------------|--------------------|---------|
| Susquehanna Steam Electric Station Unit 2 | 05000388 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 2 OF 3 |
| | | 2009 | - 001 - | 00 | |

NARRATIVE

EVENT DESCRIPTION

While in Mode 5, Refueling, three (3) Main Steam Safety Relief Valves (SRVs) failed to meet the setpoint criteria of +/- 3% set forth in Technical Specification 3.4.3. All three SRVs actuated at a setpoint less than the -3% criteria.

The following are the test results:

| <u>Valve serial #</u> | <u>Setpoint</u> | <u>As Found</u> | <u>Deviation</u> |
|-----------------------|-----------------|-----------------|------------------|
| N63790-00-0085 | 1175 | 1123 | -4.42% |
| N63790-00-0020 | 1205 | 1165 | -3.32% |
| N63790-00-0019 | 1195 | 1155 | -3.35% |

Originally, this event was determined not to be reportable as an Operation or Condition Prohibited by Technical Specifications {10 CFR 50.73(a)(2)(i)(B)} since the minimum number of SRVs required by the Technical Specifications remained operable. In addition, the failure was determined not to be reportable as a Common-Cause Inoperability of Independent Trains or Channels {10 CFR 50.73(a)(2)(vii)} since the guidance provided in Revision 2 to NUREG-1022 did not discuss setpoint drift as a common cause failure. After review of NRC Information Notice 2006-24, "Recent Operating Experience Associated with Pressurizer and Main Steam Safety/Relief Valve Lift Setpoints," these SRV failures were determined to be reportable under 10 CFR 50.73(a)(2)(vii). The SRVs remained functional and the Technical Specification required number of SRVs (12) remained operable. There were no actual adverse consequences to the fuel, any plant equipment, or to the health and safety of the public as a result of this event.

A review of the previous 3 years of SRV testing revealed the following:

| <u>Year</u> | <u>Valve serial #</u> | <u>Setpoint</u> | <u>As Found</u> | <u>Deviation</u> |
|-------------|-----------------------|-----------------|-----------------|------------------|
| 2008 | N63790-00-0025 | 1205 | 1137 | -5.64% |
| | N63790-00-0082 | 1205 | 1159 | -3.82% |
| 2007 | N63790-00-0130 | 1205 | 1145 | -4.98% |
| 2006 | N63790-00-0081 | 1195 | 1154 | -3.43% |

Based on the above testing results, the failure of 2 SRVs in 2008 is also reportable under 10 CFR 50.73(a)(2)(vii) because of multiple failures.

CAUSE OF THE EVENT

The cause of the event was determined to be setpoint drift.

ANALYSIS/SAFETY SIGNIFICANCE

This event was determined to be reportable under 10 CFR 50.73(a)(2)(vii) in that three (3) SRVs failed their setpoint criteria due to setpoint drift. The SRVs would have relieved pressure at a pressure lower than the setpoint and the Technical Specification required number (12) of SRVs was operable. As a result, there was no safety significance for this event.

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

| 1. FACILITY NAME | 2. DOCKET | 6. LER NUMBER | | | 3. PAGE |
|---|-----------|---------------|----------------------|--------------------|---------|
| Susquehanna Steam Electric Station Unit 2 | 05000388 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 3 OF 3 |
| | | 2009 | --001-- | 00 | |

NARRATIVE

CORRECTIVE ACTIONS

The following corrective action has been completed:

- The SRVs were replaced with SRVs having a setpoint tolerance of +/- 1%.

The following corrective action is planned:

- Revise reportability procedure to clarify that multiple test failures should also be evaluated for common cause under 10 CFR 50.73(a)(2)(vii) and that setpoint drift is a common cause.
- Evaluate the existing test procedure, valve performance, appropriateness of maintaining the current TS limit, and take actions accordingly.

No regulatory commitments are associated with this report.

ADDITIONAL INFORMATION

Failed Component Information: None

Previous Similar Events:

- LER 2000-003-00, Docket No. 387/License No. NPF-14, "Multiple Test Failures of Suppression Chamber-to-Drywell Vacuum Breakers"
- LER 2000-007-00, Docket No. 387/License No. NPF-14, "Multiple Test Failures of Main Steam Safety Relief Valves"
- LER 2001-005-00, Docket No. 388/License No. NPF-22, "Multiple Test Failures of Main Steam Safety Relief Valves."